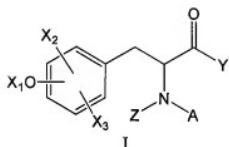


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

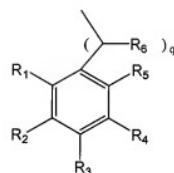
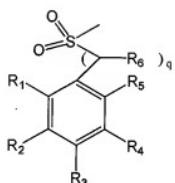
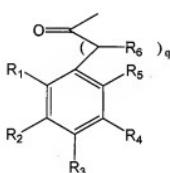
1. (currently amended) A compound of the formula I:



wherein

Z is H or lower alkyl;

A has the structure:



or

or

in which

B is cyanoalkyl, a carbocycle or a heterocycle optionally substituted with one or more R₁ substituents;

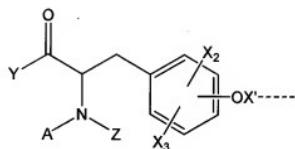
q is 0-3;

R₁, R₂, R₃, R₄, R₅ and R₆ independently are hydrogen, alkyl, amino, alkylamino, dialkylamino, nitro, urea, cyano, thio, alkylthio, hydroxy, alkoxy, alkoxyalkyl, alkoxy carbonyl, alkoxy carbonyl amino, aryloxycarbonyl amino, alkylsulfinyl, sulfonyl, alkylsulfonyl, aralkylsulfonyl, arylsulfonyl, heteroaryl sulfonyl, alkanoyl, alkanoyl amino, cycloalkanoyl amino, aryl, arylalkyl, halogen, or alkylphosphonyl, and R₁, R₂, R₃, R₄ and R₅ are substituted with 0-3 substituents selected from the group

consisting of hydroxy, carboxyl, lower alkoxy carbonyl, lower alkyl, nitro, oxo, cyano, carbocyclyl, heterocyclyl, heteroaryl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkanoylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, aryl, aroyl, heterocyclyl carbonyl, halogen and lower alkylphosphonyl; or two of R₁ to R₅ together form a carbocycle or heterocyclic ring;

Y is H, OH, alkoxy, alkoxyalkoxy, aryloxy, alkylaminoalkoxy, dialkylaminoalkoxy, alkylamino, arylamino, heterocyclyl or heteroarylalkyl, where each of the forgoing may be substituted or unsubstituted;

X₁ is H—C(O)OR, C(O)NRaRb, C(O)R, or C(O)SR, wherein R, Ra and Rb, individually, is hydrogen or alkyl, alkoxy, aryl, heterocyclyl, heteroaryl, substituted with 0-4 substituents selected from the group consisting of halogen, hydroxy, amino, carboxyl, nitro, cyano, heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, aralkyl, aralkyloxy, aryloxycarbonyl, aralkyloxycarbonyl, alkylene dioxy, lower alkoxy carbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroaryl amine lower alkyl, halo lower alkyl, and alkoxy lower alkyl; wherein said heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, aralkyl, aralkyloxy, aryloxycarbonyl and aralkyloxycarbonyl substituent is optionally substituted with halogen, hydroxyl, amino, carboxyl, nitro, cyano, alkyl and alkoxy; and wherein Ra and Rb together with the nitrogen to which they are attached form a heterocyclyl or heteroaryl group substituted with 0-5 substituents R or Rd; wherein Rd has the structure

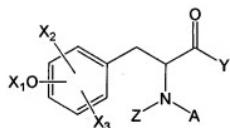


wherein X' is a divalent linker selected from the group consisting of C(O)NRa, C(O) or a bond;

X₂ and X₃ are each independently hydrogen, halogen, hydroxy, amino, carboxyl, nitro, cyano, or substituted or unsubstituted alkyl, aryl, heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, alkylene dioxy, lower alkyl carbonylamino, lower alkenyl carbonylamino, aryl carbonylamino, arylalkyl carbonylamino, lower alkoxy carbonylamino, lower alkylamino carbonylamino, arylamino carbonylamino, lower alkoxycarbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower

alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroaryl amino lower alkyl, halo lower alkyl, alkoxy lower alkyl; and wherein X₁ and X₂ or X₃ may be bonded together to form a heterocyclic or heteroaryl ring(s); or X₃ and Z together form a heterobicyclic ring;
or a pharmaceutically acceptable salt thereof.

2. (currently amended) A compound according to claim 1, having the formula:

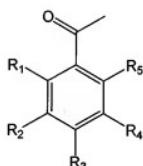


I

wherein

Z is H or lower alkyl;

A has the structure:



in which R₁, R₂, R₃, R₄ and R₅, independently are hydrogen, alkyl, amino, alkylamino, dialkylamino, nitro, cyano, thio, alkylthio, hydroxy, alkoxy, alkoxyalkyl, alkoxy carbonyl, alkylsulfinyl, sulfonyl, alkylsulfonyl, alkanoyl, aryl, arylalkyl, halogen, or alkylphosphonyl, and R₁, R₂, R₃, R₄ and R₅ are substituted with 0-3 substituents selected from the group consisting of hydroxy, carboxyl, lower alkoxy carbonyl, lower alkyl, nitro, cyano, heterocyclyl, heteroaryl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, aryl, halogen and lower alkylphosphonyl;

Y is H, OH, alkoxy, alkoxyalkoxy, aryloxy, aminoalkylalkoxy, diaminoalkylalkoxy, alkylamino, arylamino, heterocyclyl or heteroarylalkyl, where each of the forgoing may be substituted or unsubstituted;

X₁ is H-, C(O)OR, C(O)NRaRb, C(O)R, or C(O)SR, wherein R, Ra and Rb, individually, is hydrogen or alkyl, aryl, heterocyclyl, heteroaryl, substituted with 0-4 substituents selected from the group consisting of halogen, hydroxy, amino, carboxyl, nitro, cyano, heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, alkyleneedioxy, lower alkoxy carbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroarylamino lower alkyl, halo lower alkyl, alkoxy lower alkyl; and wherein Ra and Rb together with the nitrogen to which they are attached may form a heterocyclyl or heteroaryl group substituted with 0-4 substituents R;

X₂ and X₃ are each independently hydrogen, halogen, hydroxy, amino, carboxyl, nitro, cyano, or substituted or unsubstituted alkyl, aryl, heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, alkyleneedioxy, lower alkyl carbonylamino, lower alkenyl carbonylamino, aryl carbonylamino, arylalkyl carbonylamino, lower alkoxy carbonylamino, lower alkylamino carbonylamino, arylamino carbonylamino, lower alkoxy carbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroarylamino lower alkyl, halo lower alkyl, alkoxy lower alkyl; and wherein X₁ and X₂ or X₃ may be bonded together to form a heterocyclic or heteroaryl ring(s); or a pharmaceutically acceptable salt thereof.

3. (canceled)

4. (canceled)

5. (previously presented) The compound of claim 2, wherein X₁ is C(O)NRaRb wherein Ra and Rb together with the nitrogen to which they are attached form a heterocyclyl or heteroaryl group substituted with 0-5 substituents selected from the group consisting of hydrogen, alkyl, alkoxy, aryl and R; wherein R is hydrogen or alkyl, alkoxy, aryl, heterocyclyl or heteroaryl, substituted with 0-4 substituents selected from the group consisting of halogen, hydroxy, amino, carboxyl, nitro, cyano, heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, aralkyl, aralkyloxy, aryloxycarbonyl, aralkyloxycarbonyl, alkyleneedioxy, lower alkoxy carbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower

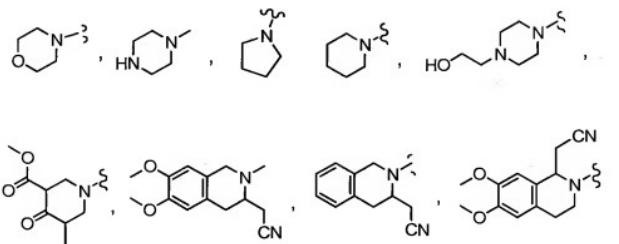
alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroaryl amino lower alkyl, halo lower alkyl, and alkoxy lower alkyl; wherein said heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, aralkyl, aralkyloxy, aryloxycarbonyl and aralkyloxycarbonyl substituent is optionally substituted with halogen, hydroxyl, amino, carboxyl, nitro, cyano, alkyl and alkoxy; and X₂, X₃ are each independently H, alkyl, alkenyl, alkynyl, aryl, arylalkyl, heterocyclyl, or heteroaryl.

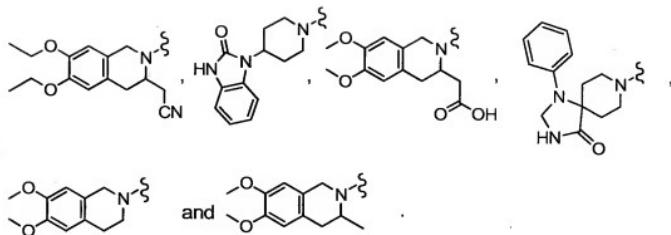
6. (withdrawn) The compound of claim 2, wherein X₁ is C(O)OR, C(O)R, or C(O)SR and R is heterocyclyl or heteroaryl, substituted with 0-4 substituents selected from the group consisting of halogen, hydroxy, amino, carboxyl, nitro, cyano, heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, aralkyl, aralkyloxy, aryloxycarbonyl, aralkyloxycarbonyl, alkyleneedioxy, lower alkoxy carbonyl, lower alkyl, lower alkenyl, lower alkynyl, lower alkylthio, lower alkoxy, lower alkylamino, lower alkylsulfinyl, lower sulfonyl, lower alkylsulfonyl, lower alkanoyl, lower alkylphosphonyl, aminosulfonyl lower alkyl, hydroxy lower alkyl, alkylsulfinyl lower alkyl, alkylsulfonyl lower alkyl, alkylthio lower alkyl, heteroarylthio lower alkyl, heteroaryloxy lower alkyl, heteroaryl amino lower alkyl, halo lower alkyl, and alkoxy lower alkyl; wherein said heterocyclyl, heteroaryl, aryl, aroyl, aryloxy, aralkyl, aralkyloxy, aryloxycarbonyl and aralkyloxycarbonyl substituent is optionally substituted with halogen, hydroxyl, amino, carboxyl, nitro, cyano, alkyl and alkoxy.

7. (cancelled)

8. (cancelled)

9. (previously presented) The compound of claim 5, wherein X₁ is C(O)NRaRb and Ra and Rb together form a heterocyclyl group selected from the group consisting of





10. (previously presented) The compound of claim 9, wherein Ra and Rb together form the heterocyclyl group



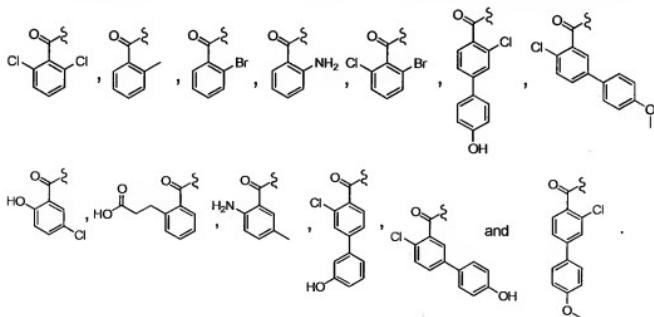
11. (canceled)

12. (canceled)

13. (previously presented) The compound of claim 1, wherein R₁, R₅ or both are not hydrogen.

14. (previously presented) The compound of claim 1, wherein X₂, X₃, and Z are hydrogen.

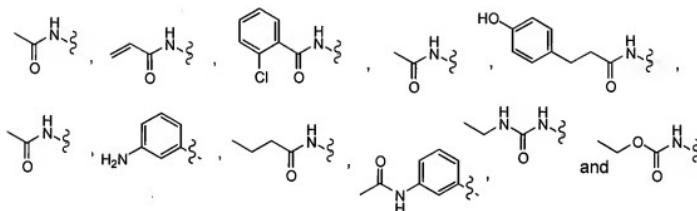
15. (original) The compound of claim 1, wherein A is selected from the group consisting of



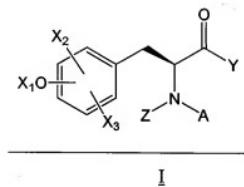
16. (original) The compound of claim 1, wherein A is



17. (original) The compound of claim 1, wherein X₂ is a member selected from the group consisting of



18. (currently amended) The compound of claim 1, wherein the compound has S stereochemical configuration



19. (original) A composition, comprising the compound of claim 1 and a carrier or excipient.

20. (canceled)

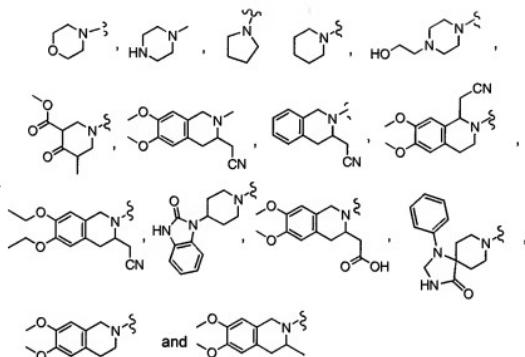
21. (canceled)

22. (canceled)

23. (canceled)

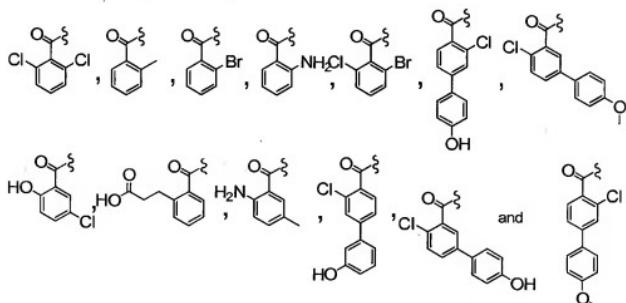
24. (canceled)

25. (previously presented) The compound of claim 2, wherein X_1 is $C(O)NR_aR_b$ and R_a and R_b together form a heterocyclyl group selected from the group consisting of



and

A is selected from the group consisting of



26. (previously presented) The compound of claim 25, wherein Z , X_2 and X_3 are each H.

27. (previously presented) The compound of claim 26, wherein Y is OH, alkoxy, aryloxy or arylalkoxy.

28. (previously presented) The compound of claim 27, wherein Ra and Rb together form the heterocyclyl group



29. (previously presented) The compound of claim 28, wherein A is

